

NOV 29 1978

Mr. Eugene P. Holland, Chairman
ACI Standard: Building Code Requirements
for Reinforced Concrete (ACI 318-78)
Miesfinger-Holland Ltd.
32 West Randolph Street
Chicago, IL 60601

Dear Mr. Holland:

Reference is made to the Sections 9.2.4 and 9.2.5 of the Code which deal with the lateral pressure and the vertical pressure due to liquids. The way it is written, it is open to various interpretations:

- a) It is not clear whether ground water contained in the soil below water table should be considered as a "liquid" and be included in the dead load and in computation of bending moment be assigned a load factor of 1.4 or be considered as a part of soil pressure (II), and therefore, be assigned a load factor of 1.7.
- b) It is not clear whether the statement: "Vertical liquid pressure should be considered as dead load W..." refers only to liquid in a tank or to the water in the soil as well and, therefore, what load factors should be assigned in the calculation of moments due to buoyant forces. In short, it is not clear whether subsurface water is part of the soil or should be treated as liquids as if it were contained in a tank.

Unfortunately, the Commentary does not provide any guidance on the subject. Would you please present my inquiry to the Committee and provide us with an appropriate explanation.

Sincerely,

Stanislaw E. Litynski
Structural Engineering Branch
Division of Systems Safety

Ltd.

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